

REMARKS

This Amendment is submitted in response to the Office Action dated October 30, 2007. Claims 36 and 38-51 are pending in the application. In the Office Action, Claims 39-46 and 51 are rejected under 35 USC §112, first paragraph and second paragraph; claims 39-46 and 51 are rejected under 35 U.S.C. §102; and claims 36 and 38-51 are rejected under 35 U.S.C. §103. Claims 36, 39 and 41 are amended herein. A Request for Continued Examination (RCE) is submitted herewith. The Commissioner is hereby authorized to charge deposit account 02-1818 for the RCE fee, and for any other fees which are due and owing. Applicants respectfully submit that the rejections are improper or have been overcome, as set forth in detail below.

At the outset, the Office Action objected to the previously submitted Information Disclosure Statement. Specifically, it appears that the Examiner has objected to the submission of the Japanese Office Action dated June 5, 2007 as being in the Japanese language. Applicants note that the Japanese Office Action was submitted in order to highlight the references that were cited during prosecution of the corresponding Japanese application, namely JP 2003-059540. Moreover, these references, and English language translations of at least the Abstracts of such references, cited in the Japanese Office Action, were included in the previously filed IDS. Therefore, Applicants respectfully submit that the relevance of the Japanese Office Action is derived from any relevance of the submitted English language translations of the references cited therein.

In the Office Action, Claims 39-46 and 51 were rejected under 35 USC §112, first paragraph and second paragraph. Specifically, the Office Action alleged that these claims contain subject matter which was not disclosed in the Specification in such a way as to reasonably convey to one skilled in the art that the inventor(s) had possession of the claimed invention, and that it is unclear how the curing step in Claims 39 and 41 can form a pressure sensitive adhesive layer. Applicants have amended independent Claims 39 and 41 for clarification purposes and further submit that the amended claims are in compliance with 35 USC §112 first paragraph and second paragraph. The amended and clarified claims recite the step of hardening the pressure sensitive adhesive layer to cure the pressure sensitive adhesive layer, rather than to form the pressure sensitive adhesive layer. Accordingly, Applicants respectfully submit that the rejections have been overcome.

In the Office Action, Claims 39-46 and 51 are rejected under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication No. 2003/0227253 to Seo et al. ("Seo"); Claims 39, 41-43, 45 and 51 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over PCT Publication No. WO02/084631 as evidences by corresponding U.S. Patent No. 6,872,635 to Hayashi et al. ("Hayashi"); Claims 36, 38-39, 41-43 and 47-51 are rejected under 35 U.S.C. §103(a) as being unpatentable over PCT Publication No. WO02/084631 as evidenced by the corresponding Hyashi reference, and in view of U.S. Patent No. 5,426,342 to Nakamura et al. ("Nakamura"); and Claims 40 and 44-46 are rejected under 35 U.S.C. §103(a) as being unpatentable over PCT Publication No. WO02/084631 as evidenced by the corresponding Hyashi reference, and in view of Nakamura and Seo. Applicants believe that the anticipation and obviousness rejections should be withdrawn as described in greater detail below.

As previously provided, independent Claims 39 and 41 have been amended to recite, in part, embedding the devices (e.g., one-side devices and other-side devices) into a pressure sensitive adhesive layer being in an uncured state. Independent Claim 36 is consistent with amended Claims 39 and 41. With respect to the other-side devices, these devices are stripped from the first substrate so as to be embedded in the pressure sensitive adhesive layer, that remains in an uncured state.

Since the devices 3 are stripped from the temporary adhesive layer 2 before hardening (curing) the pressure sensitive layer 5, the force required for separating the temporary holding substrate 1 and the transfer substrate 4 away from each other is reduced, and any damage to the temporary holding substrate 1 or the transfer substrate 4 at the time of stripping the devices 3 from the temporary adhesion layer 2 is reduced, resulting in an improved overall structural quality of the finished display apparatus. Particularly, in the case of manufacturing a display apparatus having a large screen, it is necessary to enlarge the area of the transfer substrate 4, so that lowering the possibility of damaging the transfer substrate 4 or the temporary holding substrate 1 should realize a reduction in the manufacturing cost and improved product quality and enable manufacture of a larger sized display apparatus. (See, Applicants Published Application No. 2005/0233504, paragraph 49).

In contrast, the cited art, even if properly combinable, fails to disclose or to suggest the claimed invention. For example, Seo does not disclose or suggest a display apparatus where the display is formed by embedding devices that are on a first substrate to an uncured pressure sensitive adhesive layer on a second substrate, stripping the devices from the first substrate where the pressure sensitive adhesive layer remains in an uncured state, and then curing the pressure sensitive adhesive layer, as recited in amended independent Claims 39 and 41.

Moreover, the Hayashi reference discloses an adhesive layer 7 partially irradiated with laser beams L from the back surface side of the transfer substrate 6, such that the adhesive layer can be softened. Then, the adhesive layer 7 is cured via cooling wherein the devices 3 are fixed to the adhesive layer 7. (See, Hayashi, column 11, lines 40-50). In this regard, the devices 3 in Hayashi are just fixed to, not embedded in, the adhesive layer 7. Moreover, in order to fix the devices in Hayashi to the adhesive layer, softening of the adhesive layer via irradiation and then cooling thereof is required before the adhesive layer is cured to fix the devices to the adhesive layer.

Hayashi does not disclose or suggest stripping the other-side devices from the substrate thereby holding the other-side devices in an embedded state in the uncured pressure sensitive adhesive layer. In contrast, the devices embedded in the uncured pressure sensitive adhesive layer are stripped from the substrate before the uncured pressure sensitive layer is hardened as claimed and previously discussed. Therefore, Applicants believe that one skilled in the art would consider Hayashi distinguishable from the claimed invention for at least these reasons.

Nakamura is relied on for the alleged disclosure of a heat sensitive and pressure sensitive adhesive layer and thus does not cure the deficiencies of Hayashi or Seo, as discussed above.

Accordingly, Applicants believe that the anticipation and obviousness rejections should be withdrawn for at least these reasons, and further respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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